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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,312	10/30/2001	Daisuke Ogata	MTS-3284US	7214

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EXAMINER

PATEL, GAUTAM

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,312

Applicant(s)

OGATA ET AL.

Examiner

Gautam R. Patel

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2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-12 are pending for the examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. § 119(a)-(d), which papers have been placed of record in the file.

NOTES & REMARKS

3. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which Applicant may become aware in the specification.

Specification

4. The disclosure is objected for following reasons.
 - a. This application does not contain an Abstract of the Disclosure as required by 37 C.F.R. § 1.72(b). An Abstract on a separate sheet is required.

Applicant is reminded of the *proper content* of an Abstract of the Disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains.

If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure.

If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement.

In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof.

If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following: (1) if a machine or apparatus, its organization and operation; (2) if an article, its method of making; (3) if a chemical compound, its identity and use; (4) if a mixture, its ingredients; (5) if a process, the steps. Extensive mechanical and design details of apparatus should not be given.

Applicant is reminded of the *proper language* and **format** of an Abstract of the Disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the **range of 50 to 150 words**. It is important that the **abstract not exceed 150 words in length** since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said", should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," *etc.*

In the present Application, in the abstract the invention itself is not clearly described. Abstract is vague and too short.

- b. The title of the invention is neither precise nor descriptive. A new title is required which should include, using twenty words or fewer, claimed features that differentiate the invention from the Prior Art. It is recommended that the title should reflect the gist of or the improvement of the present invention.

Corrections are required.

Claim Objections

5. Claims 9-12 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s)

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in proper dependent form, or rewrite the claim(s) in independent form. The subject matter of programming in a parent method claim creates confusion. Also it is no clear if the claims are independent or not for example claim 9 is trying to incorporate subject matter of claim on which it itself is dependent on.

Claim Rejections - 35 U.S.C. § 101

6. Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The claimed invention is directed to non-statutory subject matter.

Claims 9-12 are rejected under 35 U.S.C. §101. Claims 9-12 are directed to a program causing a computer to function. Program steps are not patentable subject matter as such.

Also claims 9-12 are rejected under 35 U.S.C. §101 as being hybrid claims. These claims are directed to neither a "method" nor a "program" but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101.

Claim Rejections - 35 U.S.C. § 112

7. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2, 4, 6-7 and 9 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The output of the light source "P0" under condition that $S=0$ required by the claims is not described in the specification. On page 11, lines 6-18 the specification mentions that P0 is function of Strehl ratio. Accordingly, the specification does not explain to one of ordinary skill in the art at the time of the invention, how to interpret the P0 as a function of signal $S=0$.

Claim 4 has similar problem with respect to definition of $S1=S2=0$, which is not defined in the specification [page 16] at all.

As to claim 7, "the output $Pi(1-K \times S1 \text{ square})/ \dots$ ", required by the claims is not described in the specification. On page 23, lines 22-25 the specification mentions expression 17 when $Si = 0$. However there is no expression 17 in the specification at all. Therefore, it is not clear how this expression is derived.

8. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 6 and 9 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2, lines 4-7 "the output of the light source so that, when output of the light source necessary for the recording under a condition where $S=0$ is $P0$, "the output" is \dots ", is confusing and unclear. It is not clear how the second output is related to the first output and if it is the same output as implied by word "the", than it lacks the antecedent basis.

NOTE: If " $P = P0/(1-K \times S2)$ " were to be written [with proper definition of P and $P0$ from the specification] it may clarify the invention.

NOTE: **No new matter should be added.**

Claim Rejections - 35 U.S.C. § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5 and 8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kimura et al., US Patent 5,789,734 (hereafter Kimura).

As to claim 1, Kimura discloses the invention as claimed [see Figs. 5-14, especially 5] including a light source, detection means, and control means, comprising:

a light source [fig. 5, unit 30] for generating a light spot used for information recording [col. 5, lines 3-21;

detection means [fig. 5, unit 131] of detecting an aberration amount of the light spot or a signal associated with the aberration amount [col. 9, lines 16-35]; and

control means [fig. 1, unit 47] of controlling an output of the light source by use of the detected aberration amount or the associated signal [col. 5, line 51 to col. 6, line 5].

10. The aforementioned claim 3, recites the following elements, inter alia, disclosed in Kimura:

said aberration amount is substantially a spherical aberration amount and/or a coma aberration amount [col. 5, lines 52-58].

11. The aforementioned claim 5, recites the following elements, inter alia, disclosed in Kimura:

said information recording is performed on an optical disk [fig. 5, unit 35], wherein said detection means detects and outputs a tilt amount of the optical disk as the signal associated with the aberration amount, and wherein the coma aberration amount is calculated based on a predetermined relationship that holds between the coma aberration amount and the tilt amount [col. 5, line 51 to col. 6, line 14].

12. As to claim 8, it is a claim drawn to a method claim corresponding to the apparatus of claim 1, and is therefore rejected for similar reasons set forth in the rejection of claim 1, supra.

13. A search based on the best understanding of the claims has been made to find the most pertinent art, but no statement about invention will be appropriate at this time regarding the allowableness of claims 2, 6-7, 9-12 and no art rejection will be made in

this office action regarding the claims 2, 6-7, 9-12, due to the speculation required to interpret the claims because of their indefiniteness under 35 U.S.C. 112, 1st and 2nd paragraphs and 101 as noted above (see In re Steele, 134 USPQ 292).

NOTE: Claims 4 and 7 may have allowable subject matter subject to overcoming 112 1st and 112 2nd.

Other prior art cited

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Torigoe et al. (US. Patent 5,789,734) "Exposure apparatus".
- b. Lee et al. (US. patent 5,903,536) "Objective lens device ..".

Contact Information

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is (703) 308-7940. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To can be reached on (703) 305-4827.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-4700 or the group Customer Service section whose telephone number is (703) 306-0377.


GAUTAM R. PATEL
PRIMARY EXAMINER

Gautam R. Patel
Primary Examiner
Group Art Unit 2655

August 7, 2004